

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION**

JOSEPH TULLY,

Plaintiff,

Case No. 02-CV-70327-DT

v.

HONORABLE DENISE PAGE HOOD

INTERLAKE STEAMSHIP COMPANY,

Defendant.

_____/

FINDINGS OF FACT AND CONCLUSIONS OF LAW

I. INTRODUCTION

Plaintiff Joseph Tully filed an Amended Complaint on April 8, 2004 alleging: negligence, in violation of The Jones Act (46 U.S.C. § 688 *et seq.*), in the construction and maintenance of a stairway on the ATB DOROTHY ANN, a vessel owned and operated by Defendant Interlake Steamship Company ("Interlake"); and unseaworthiness of the ATB DOROTHY ANN, in violation of the General Admiralty and Maritime Law. A trial was held before the Court. The Court issues its findings of fact and conclusions of law below.

II. JURISDICTION

The Court has original jurisdiction over this matter pursuant to 28 U.S.C. § 333(2), the claims in this matter being brought pursuant to The Jones Act, 46 U.S.C. § 688 *et seq.*, for negligence, and under the General Admiralty and Maritime Law for unseaworthiness and maintenance and cure.

III. FINDINGS OF FACT

A. Tully's Background

Tully was born on December 20, 1957. The Statistical Abstract of the United States, 11, with the ran of E-3, Able Bodied Seaman, 5th Edition, Table No. 116, Expectation of Life and Expected Death, indicates that Mr. Tully should enjoy a life expectancy of 29.7 years from age 47 years. Tully attended four years of high school, however he did not graduate but later obtained a GED while in the Navy.

Tully enlisted in the United States Navy prior to completing high school and was assigned to the USS MILWAUKEE. He was honorably discharged after four years of duty. Upon reenlisting, Tully was assigned to the USS EDDINGTON at the Rank, E-3 for two years following which he was again honorably discharged. Upon discharge from the Navy, Tully took up residence in northern Michigan and was employed as a computer operated machinist for Kalkaska Screw Products for six years until business slowed.

Tully married Karen Caldwell in 1985. Tully and Ms. Caldwell have two children, 16 and 13 years of age at the time of trial. Tully and Ms. Caldwell divorced in 2000, after fifteen years of marriage. Pursuant to a court order, Tully is responsible for child support in the amount of \$278.00 per week and was in arrears of approximately \$10,000-\$11,000 at the time of trial.

Following his employment at Kalkaska Screw, Tully moved to Houston where he worked for Keystone Valve Company for two years. Tully then obtained a United States Coast Guard merchant mariner (seaman) card, returned to Michigan and joined the Seafarer's International Union and began his career as a merchant marine.

Tully's first employment as a merchant marine was with Medusa Cement as an able-bodied seaman on the M/V MEDUSA CONQUEST, where he worked for four years beginning in December 1992. In September 1995, Tully passed the Coast Guard Licensing Test and was promoted to relief third mate and was offered a job through his union with Merce Transportation. In conjunction with his mate's license Tully was required to undergo a Coast Guard physical examination by a qualified medical provider in accordance with Coast Guard Form 719K. The license Tully holds is subject to periodic renewal every five years and a medical certification examination is a prerequisite to obtaining the license.

Timothy Lambert, D.O., a licensed medical professional in the State of Michigan, has been Tully's family doctor since December 20, 1993. Dr. Lambert conducted merchant marine physical examinations on Tully on May 11, 1998 and on September 13, 1999. Prior to July 11, 2001, the date of the incident herein involved, Tully had not been treated by Dr. Lambert for any injury to his back, nor did he suffer from any physically disabling condition that prevented him from engaging in the duties of a mate.

Tully was hired by Interlake in 1999. When hired by Interlake, Tully underwent a physical examination certification in accordance with Coast Guard Form 719K indicating he was "fit for duty" with no restrictions. Interlake provides employee physical examinations at "fit out", the beginning of each navigation season annually.

In addition to his other duties on the vessel, Tully was a Safety Officer, with certain safety duties that included presiding over Safety Committee meetings where safety issues were discussed by the crew. He was responsible for taking minutes at those meetings. One of Tully's duties as a Safety Officer was to report unsafe or dangerous conditions. In fact this is a duty of all members of the crew. Another duty performed by Tully was

completion of injury reports for crewmen injured on the vessel. Although Tully claims to have injured his fingers on the handrail of the stairway in question, there is no indication that he reported this unsafe condition.

On July 11, 2001 and at all other times material and relevant to the issues in this lawsuit, including April 1, 1999 through March 31, 2002, the terms and conditions of Tully's employment with Interlake, hours of work, wages and benefits were governed by a labor agreement between Interlake and the American Maritime Officers, Tully's bargaining representative. As of July 11, 2001, Tully was entitled to a base wage rate of \$19.9225 per hour or \$159.38 per day and overtime wages for work more than eight (8) hours in any one day at one and one-half times the on board base wage rate divided by eight (8) or \$29.884 per hour.

At all times material and relevant to the issues in this lawsuit, including July 11, 2001, Interlake employed Tully as a crew member aboard the ATB DOROTHY ANN in the capacity of either a third or second mate. During the course of his employment with Interlake, Tully was a "crewman", either third or second mate, for the purposes of the application of The Jones Act, 46 U.S.C. §688 *et seq.* and the General Admiralty Laws of the United States of America. The ATB DOROTHY ANN was a "vessel" for purposes of application of the Jones Act, 46 U.S.C. § 688 *et seq.* and the General Admiralty Laws of the United States.

B. The Incident

On July 11, 2001, Tully completed his watch from 1200 to 0400 hours. He then went to his quarters on 02 deck, collected his laundry in a plastic milk crate and left his room en route to the laundry room on 01 deck. Prior to descending the stairs, Tully could see that

the stair was still moist from cleaning. Tully slipped on the bottom step of the stairway from the 02 deck level to the 01 deck level of the ATB DOROTHY ANN. Tully stated that as he descended the stairway he held onto the left handrail with his left hand. About the third step from the bottom he removed his left hand from the handrail. Tully claims that he removed his hand to avoid a sharp bracket which his daughter had nicked her finger on it. He did not grab the handrail again even though he was aware of the "ship maxim," "one hand for yourself, one hand for the ship." Tully claims that his left foot landed flat on the step then made contact with the nose of the stair tread and slipped out from under him. He claims to have hit his tailbone on the stairs and landed on the deck with his palms on the last step. However, this claim is not supported by Tully's report of the incident written shortly after it occurred.

Tully reported this slip and fall to the captain of the vessel, Captain Gary Schmidt. Tully was in apparent pain. The Captain offered to relieve him of his watch, but Tully declined. Captain Schmidt testified that Tully reported he slipped on the bottom step of the stairway and caught himself before falling. When asked by the Captain if he wanted to get off the ship, Tully indicated he would wait and see how his back felt. Even though Tully claims he was in pain, Tully continued to carry out his job duties standing several watches.

After the injury, Tully was permitted to leave the vessel to obtain medical treatment at the St. Margaret Mercy Hospital in Hammond, Indiana. At the hospital, he indicated that he first began to have pain when he had earlier thrown a shovel and twisted his back. At trial, Tully claimed that he told the emergency room personnel that he injured his back when he fell.

Captain Schmidt made a report of the occurrence to the Director of Human

Resources for Interlake, Brendan O'Connor. Mr. O'Connor, believing that Tully had injured his back by slipping and falling on the stairs of the ATB DOROTHY ANN, authored a claim set-up form indicating that Tully had injured himself when he slipped and fell on the stairs. Captain Schmidt testified that Tully had never complained to him about any "tingling hot streaks."

Although the injury report signed by Tully indicates "none" in the space provided to indicate whether there were "any unsafe conditions that caused the incident," Tully now claims that the stair treads were worn, slick and shiny, that there was no non-skid material on the stairs and that the stair incline was excessive. Tully also claims that a diamond deck plating should have been placed on the stairs, but never suggested that the plating should have been placed on the stair as a safety measure, nor did he tell anyone any safety concern he had about the stairway. No complaints were brought to the attention of the Safety Committee or to Captain Schmidt or to Interlake about the condition of the stairway or its handrail during the 2001 sailing season.

This was not the first time Tully had descended this stairway; he had traversed this stairway hundreds of times during the first two months of the 2001 sailing season and had been aboard the ATB DOROTHY ANN since 1999.

C. Medical Examinations and Reports after the Incident

About two weeks after the incident, Tully returned home to Red Bank, New Jersey and was seen by Dr. Bruce Rosenblum, a board certified neurosurgeon in New Jersey. On July 24, 2001, Dr. Rosenblum evaluated Tully as having a disorder of the lumbar spine. Tully had reported that he had experienced some pain when he threw a shovel back into the rack and the shovel caught his shirt, spinning him around. Dr. Rosenblum noted that

Tully had indicated that twelve hours later, he was walking down some stairs and began experiencing excruciating pain down his left leg with some numbness. Tully never specifically told Dr. Rosenblum that he “slipped and fell.” Dr. Rosenblum indicated the initial shoveling incident resulted in back spasm or strain but the real radiculopathy occurred as a result of the injury Tully sustained walking down the stairs. Dr. Rosenblum diagnosed Tully with lumbar radiculopathy secondary to herniated lumbar disk and noted that the cause of the herniated disk was an injury at work. While Tully claims he reported the injury on the stair to Dr. Rosenblum, that does not appear in the history taken by the doctor.

Dr. Rosenblum referred Tully for an MRI. The MRI revealed a posterior disc herniation at L5-S1 consistent with the doctor’s findings. Dr. Rosenblum also found decreased ankle reflex, positive straight leg raising at 40 degrees and noted a diagnosis of lumbar radiculopathy, secondary to herniated lumbar disc. Following the MRI, Dr. Rosenblum ordered a treatment plan which recommended that Tully undergo a lumbar discectomy which was performed at Riverview Medical Center on July 26, 2001. Tully saw Dr. Rosenblum for post operative care. On August 7, 2001, Dr. Rosenblum found pain and swelling at the site of the incision. On October 21, 2001, Tully had residual stiffness and Dr. Rosenblum ordered eight weeks of therapy.

Tully returned to Michigan and saw his family physician, Dr. Lambert, for follow-up care, beginning, October 11, 2001. On the advice of his doctors, Tully obtained physical therapy at the Traverse City Fitness Center Physical Therapy.

Dr. Rosenblum authorized Tully’s return to work on December 11, 2001 finding Tully was 70% improved. Dr. Rosenblum testified the usual recovery time for a man the age of

Tully is three to four months. However, following the appointment, Tully telephoned the doctor indicating he did not feel able to return to work. Dr. Rosenblum then referred Tully for a functional capacity examination (FCE) to be performed before Tully was returned to work.

The FCE was conducted on December 26, 2001 by Lynn Lombard at the Traverse City Fitness Center Physical Therapy. Ms. Lombard found Tully had limited ability to tolerate stair climbing and placed lifting restrictions on him of 30-42 pounds. Based on the restrictions recommended by Ms. Lombard, Tully could not meet the physical requirements of the United States Coast Guard Physical Certification Examination Form 719K, which require lifting up to 50 pounds, steep stair climbing and climbing of vertical ladders. Tully claims he could not return to his work as a second mate and could not renew his mate's license. Dr. Rosenblum noted after review of the FCE that it showed he had underestimated the degree of recovery and that Tully had trouble with stair and ladder climbing as well as lifting. Dr. Rosenblum did not see Tully between December 2001 and April 2003.

Interlake paid Tully his regular wage of \$2,231.32 every two weeks from the time he left the vessel for the emergency room at St. Margaret until the end of the sailing season in December 2001. In March 2003, Interlake offered Tully employment with the company because a medical fit for duty authorization had been received. Tully did not return to work for Interlake and according to Interlake his employment ceased the end of March 2003.

On January 28, 2002, Tully saw Dr. Lambert who indicated that Tully continued to have low back and buttock pain which he believed was permanent and that Tully's ability

to lift over 50 pounds and to climb stairs would continue to be limited.

Tully was seen by Dr. Esa Ali, a family practice doctor in Traverse City, Michigan, in April and May of 2002. Dr. Ali reported seeing Tully two to three times, the first time, March 19, 2002. Dr. Ali noted Tully reported back pain, sacroiliac joint pain and lumbosacral strain. Tully reported taking Tylenol and a new narcotic pain killer. Dr. Ali found no pain on palpation of spinous processes (the paraspinal muscles) and good range of motion. He found osteoarthritis in the hips, pain on palpation of the left sacroiliac joint, but no pain on the sides. Tully saw Dr. Ali again on May 2002 complaining of chronic back pain secondary to an old traumatic injury. Dr. Ali prescribed physical therapy and Ultracet.

In September 2002, Tully presented to Dr. Ali again with complaints of back pain. Dr. Ali noted Tully was irregular with his physical therapy, but was satisfied with using the Ultracet for pain relief. Dr. Ali indicated Tully, as a boat captain, could not use narcotics for pain hence the switch to Ultracet. Dr. Ali noted that in March 2002, Tully had indicated he was going to be working as a boat captain. Dr. Ali reported there were no physical restrictions that prevented Ali from working as a ship's captain. He noted he had prescribed the Ultracet, a non-narcotic, so as not to interfere with Tully's work on boats. Dr. Ali concluded that no physical restrictions prevented Tully from performing the work of a ship captain.

Tully saw Dr. Rosenblum in April 2003. Dr. Rosenblum recommended another FCE which was conducted by Joel Ayala at the Munson Medical Center. Ayala's findings were similar to the prior FCE findings. Tully had difficulty with stair climbing, sitting and standing and could only occasionally lift between 35 and 52 pounds. Tully claims this continued to disqualify him from obtaining a mate's license from the Coast Guard. Dr. Rosenblum

testified that in his view it was not in Tully's best interest to return to work as a mate on an articulated barge. Dr. Rosenblum believed Tully to be at maximum medical improvement. Dr. Rosenblum did know Tully was working on a ship but did not know where or that he was a tug captain.

D. Subsequent Employment

Tully returned to maritime work in April and May of 2002 for Underwater Construction Corporation. He missed no days of work at this job due to his injury on the ATB DOROTHY ANN. Tully used his Coast Guard license to obtain this employment. Tully claimed the vessel moved only 300 to 400 feet, from the marina to the border. Tully also worked for Cornucopia Cruise Lines beginning September 2003, again using his Coast Guard license. At Cornucopia, Tully was captain of a large dinner cruise ship in the New York harbor. As part of this job, he piloted a vessel from Texas to New Orleans. Tully attended a union sponsored training program (Union of American Maritime Officers) to obtain the Standard Training Certificate of Watch needed as an endorsement on his license in order to sail the vessel from Texas to New Orleans on near coastal waters.

In December of 2003, Tully applied for employment with McAllister Towing, a large tug boat company, indicating that he had received a Coast Guard physical in September 2003 declaring him fit for duty. Tully indicated that he could handle heavy lines, carry and lift up to 100 pounds, climb ship ladders and offered to take a physical examination to show his ability to perform the functions of the position sought. McAllister hired Tully as a deck hand on a tug boat in December 2003 at \$175 per day. Tully was promoted to mate and received an increase in pay to \$235 per day and \$275 if sailing as a captain. Tully, however, never underwent a Coast Guard examination in September 2003 as he had

indicated. Near the end of February 2004, McAllister terminated Tully for testing positive for marijuana which is classified as a “dangerous drug” by the United States Coast Guard.

In March 2004, Tully claims his mate’s license expired and he was not permitted to renew the license because of doctor’s restrictions. Tully held other jobs between the time of his injury and the day of trial bringing in wages of \$50,241.59 in 2001 and \$21,497 in 2003. He claims lost wages of \$612,126.00 from January 1, 2005 through December 31, 2023 (when he attains age 65).

Tully claims he continues to experience needle-like pain in his back and fears he will never be able to return to his former occupation as a merchant marine. Tully claims he suffers not only pain, but also loss of social enjoyments and destruction of his normal life from July 11, 2001 through the remainder of his life. Tully seeks 3 1/2 years past damages and 29.7 years of future damages, at \$10,000 per year for a total claim of \$332,000.

E. The History of The ATB DOROTHY ANN

The ATB DOROTHY ANN was designed in 1996 by Robert Paul Hill, a naval architect and marine engineer with over 20 years or experience. Hill gained his skills as a naval architect and marine engineer through an apprenticeship.¹ His own company, Ocean Tug and Barge, builds tugs and barges and has been involved in the construction of 33 vessels. The vessel was built in 1999.

Based on his over twenty years of experience, Hill testified that there was no mandate requiring compliance with the Occupational Safety and Health Administration (“OSHA”) regulations with respect to uninspected vessels like the ATB DOROTHY ANN.

¹ Although Hill studied mechanical engineering at Huron Valley Community College, he holds no formal degree.

He was familiar with the Coast Guard regulations applying to tugs and barges. The ATB DOROTHY ANN was designed to American Bureau of Shipping ("ABS") standards and certain Coast Guard regulations, specifically stability and low lying regulations applicable to tugs. Hill did not find 46 C.F.R. § 72.05-20 (Coast Guard Regulations Chapter I, Subchapter H, Construction and Arrangements, Structural Fire Protection for Stairways, Ladders and Elevators) applicable to the ATB DOROTHY ANN because it is not a passenger vessel. The stair in question is a crew stairway; an interior stairway, not totally enclosed. He noted it would be the equivalent of a Type 3 (Interior stairway not enclosed) stair if the C.F.R. was applicable. Hill testified that he would call the stairs in question a stairway and not a ladderway. The stairway as originally designed had two handrails. Hill testified it had been his decision to include the two handrails because he believed the vessel would be operating, originally on Lake Superior, in "very large waves," and because of the pitching, he thought two handrails were warranted, especially on an ATB of the size of the ATB DOROTHY ANN. He testified it was a safety feature. Hill was not advised of the change to one handrail. He noted the handrails were to be joined to the sheet metal, not welded, because they were to be attached to joiner panels, which is the general practice in the industry.

Hill also claimed that 29 C.F.R. § 1910.24 governing walking and working surfaces was not applicable to the ATB DOROTHY ANN at the time it was constructed. Hill based this opinion on discussions with the Coast Guard and the ABS.

Hill's design called for the stairway to be 1/4 inch diamond plate surface. This was for safety resulting from its non-skid properties and also for economy, being less expensive to fabricate. The diamond plate was designed to extend over the nose of the stair. He was

unaware of the change from diamond plating. Hill stated the linoleum stair cover with aluminum nose caps was a valid way to build the stairs and commonly done in the marine industry. Hill noted that the importance of having non-skid surface on the nose tread depended on how much tread and how much non-skid was behind the nose. He stated he designed with tread on the nose not so much to prevent slips and falls but to minimize the possibility of slips and falls, stating people will always fall no matter what is designed.

Hill indicated he had specified a 50 degree angle of inclination which was appropriate and a much more relaxed angle than common on tugs. He would not design greater than 50 degrees although on most tugs it is 60 to 65 degrees. He also testified that 53 to 54 degrees would be considered a variance from his design but that tugs are routinely built with considerably steeper stairs.

Hill had designed the stair tread depth at 8 3/4 inches flat tread, and nosing of 1/4 inches to meet the marine standard of 9 inches, which meets the ABS ergonomic standards. He noted the rise was to be 9 inches to make the standard "rise and run" between seventeen and nineteen inches. Hill believed an average of 14.6 to 14.5 inches would be a variance. He noted a 1/4 to 1/8 inch variance is considered acceptable. Hill could not opine on the safety of the 01-02 deck stair as configured on the day Tully slipped.

Hill was familiar with and sometimes used the American Society for Testing and Materials ("ASTM") guidelines even though ASTM does not apply to tugs and the guidelines are in excess of what is required. He testified that he does not always apply the standards to stairways or passageways because of the small size of tugs. He also noted that for marketing purposes the ATB DOROTHY ANN is often called a seaway class open tug. He was sure following a discussion with the Coast Guard Marine Safety Center that the ATB

DOROTHY ANN was to be an uninspected tug.

At the request of Interlake to class the vessel, the ABS classed the ATB DOROTHY ANN as a Maltese Cross Great Lakes service vessel. The ABS performs annual inspections known as yearly reclassifications. In 2003, the ATB DOROTHY ANN underwent its five-year reclassification or inspection. No letter or other concern about the construction or design of the stairway between the 01 and 02 decks on the ATB DOROTHY ANN has been expressed by the ABS since its initial classification.

Prior to the maiden voyage of the ATB DOROTHY ANN, there was a problem related to the handrail between the 01 and 02 decks, near the top of the 02 deck. As the handrail comes down on the stairway, the handrail passes over in front of the 02 deck. The edge of the 02 deck, made of steel, was too close to the edge of the handrail so that when a person placed their hand on the handrail, the knuckles would hit the back of the 02 deck. To remedy the problem, the deck was cut at the 02 level to increase the distance between the handrail and the edge of the deck.

The first sailing season for the ATB DOROTHY ANN was 1999. Shortly after the vessel came into service in July 1999, the aluminum nose pieces and the vinyl tiles of the 01-02 deck stairway were replaced by the company who originally installed the tiles because the vinyl pieces were cracking. The problem continued until the end of 2000.

Prior to the 2001 sailing season, the vinyl tile and the nose pieces on the stairs of the 01-02 deck stairway were removed. The stairs were then painted and 3M anti-skid pads were installed on each tread. The anti-skid pads were installed according to the manufacturer's instructions and were placed about one-half inch inside the nose of each stair. Expert testimony from Defendant's expert indicated it would not have been

appropriate to install the pads over the nose of the stair because it would have made the stairs uniform in color and thereby the edge of the stair would have been difficult to discern. Moreover, the manufacturer's instruction did not include this type of installation.

Although the contract drawings provided for one-quarter inch diamond plate for the surface of the 01-02 deck stairway which was to extend over the nose of the tread to protect against slips and skid, the 3M anti-skid pads are comparable or better than diamond plate because diamond plate becomes more slippery when wet.

The ATB DOROTHY ANN was in "navigation" for purposes of application of the Jones Act, 46 U.S.C. § 688 *et seq.* and the General Admiralty Laws of the United States. The ATB DOROTHY ANN was at all times an uninspected vessel, not subject to Coast Guard inspection pursuant to 46 U.S.C. § 2101(43).

F. Expert Testimonies

1. Plaintiff's Experts

a. Geoffrey Webster

Plaintiff presented experts who had also inspected the ATB DOROTHY ANN. Geoffrey Webster obtained an Ordinary National Diploma in marine engineering in his native England and a Bachelor's of Science degree in naval architecture and marine engineering from the University of New Castle. He also completed an apprenticeship as a marine fitter (a person who repairs and builds ships) at the Portman Naval dockyard while studying for the Ordinary National Diploma. These degrees entailed design, construction and operation of vessels that sail on oceans or lakes, including tugs and barges. Webster has experience in building and fitting ships including accommodations and ship's ladders. He has also

served as part of a crew in the British Merchant Marine and has traversed both ship ladders and ship stairways. Webster has worked in the United States since 1978. He has designed various types of vessels. He has also designed ladderways and stairways on vessels and has designed a tug including such stairways and ladderways. Webster noted that the difference between a ladderway and a stairway—one climbs hand over hand vertically down a ladderway while one walks forward down a stairway holding onto a handrail. He also noted that a stairway is normally under the angle of 50 degrees while a ladder would be vertical. Webster also noted that there is no difference in the design of a stairway on various types of vessels, but that there was a difference in designing an external versus an internal stairway.

In his experience, Webster has used the ASTM standards and the ABS requirements in designing and building a multi-million dollar vessel. Webster has testified as an expert in other slip and fall cases for both plaintiff and defense. He was retained by the Plaintiff in this case to examine the vessel and render opinions on the safety of the 01-02 stairway. He also recommended the retention of an ergonomist to give an opinion on how the Plaintiff's accident may have happened and how the construction or design of the stair may have influenced his accident. Webster opined that the design was poor and that the stairs had been "badly arranged." He determined that Tully had "more probably than not" slipped on the nosing of the stair, the ball of his foot rotating around the nosing, fell and hit his back on the stair. Webster opined this even though Tully's testimony was that his foot was flat on the stair when he slipped.

Webster inspected the stairway in February 2003. His photographs of the stair depict a stair in a state of wear, a well-traveled stairway. He noted that the stairway was

constructed consistent with the design of Paul Hill. Webster also measured the stairway. He found the angle of the stair, 52 degrees (compared to Herrin's 53.5 degrees, and Fisher's at 53 to 54 degrees and ABS guideline of 50 maximum). Webster measured the riser height at 8.3 to 9 inches (ASTM and ABS guidelines recommending 8 inches). He measured the total tread depth between 8.3 and 8.5 inches. However, the steps had a one and 5/8 inch backdrop under the previous step, which left the foot with approximately 6 1/2 inches to land on the step. Webster noted that diamond plate provides some non-skid, non-slip properties on the nosing, as did the aluminum plate over the linoleum, although he believed that aluminum plate was inferior to the diamond plate. He noted that the guidelines all recommend non-skid, non-slip material on the nosing of the stair. His inspection revealed that the stairs had about 5/8 inches on the nosing that was highly polished and not covered by the 3M non-skid pads or any other non-skid material.

Webster opined that the 01-02 deck stairs on the ATB DOROTHY ANN were unsafe, a "recognized hazard" and "extremely dangerous." He based his finding on what he found to be violations of OSHA, including that the handrail was not properly protected, the riser heights of the stairs were not uniform, the angle of the stairs was not as recommended and that the nose of the stair was not properly covered with a non-skid material, all making the ATB DOROTHY ANN an unsafe workplace under OSHA. He further opined that the edge of the stair was not painted red or yellow as recommended by ASTM. The ASTM recommendation that the tread depth be uniform was not followed, the stairs ranging from 8.375-8.75 inches in depth, the ASTM minimum being 9.5 inches and the maximum 12 inches.

Webster testified that the stairs did not meet the ABS guidelines. The stair angle

exceeded the recommended 30 to 50 degrees, measured at 52 degrees; the tread depth was below the recommended 9 inches at 8.3 to 8.5 inches; and the nose had no coloring and no non-skid material over it. He opined that the stairs were very steep and the nose very shiny and that all these factors contributed to the slip of Tully. Webster further disagrees with Fisher's finding that the stairs complied with the industry custom and practice. (Fisher had measured the angle of the stair, according to Webster, at 48 degrees.) Webster's measurements and his method of measuring were appropriately challenged by Interlake.

With respect to the handrail, Webster opined that the bracket to the bulkhead had sharp edges that he felt himself upon inspection. This interfered with a person holding the handrail while descending the stairs.

Webster also gave an opinion regarding the location of Tully's foot on the stair opining that the ball would have been on the nose. Webster actually and not surprisingly nearly slipped himself as he had some snow caught in the tread of his shoe.

b. Gary Herrin

Also testifying for the Plaintiff as an expert was Dr. Gary Herrin, a professor of Industrial and Operations Engineering at the University of Michigan College of Engineering, and Assistant Dean for undergraduate education for the College. He holds a Bachelor's, a Master's and a Ph.D. from Ohio State University in industrial systems engineering. He also served as the Director of the Center for Ergonomics for a period of time in 1982. Herrin concentrates in the ergonomic field of engineering. The Court found Herrin had no knowledge, skill, experience, training or education in maritime vessels, their stairways or ladderways. However, the Court allowed Herrin to testify regarding the risk factors involved

in the design of certain types of stairs based on Herrin's experience in the field of ergonomics. (April 8, 2004 Order, pp. 10-13) He had reviewed the OSHA regulations and ABS and ASTM guidelines that Plaintiff argues support his claims.² His description of the difference between a ladderway and a stairway from an ergonomic point of view bore little difference to that of the other experts. However, he did note that from his reading of an ASTM standard practice and an accompanying graph, at the angle of 50 degrees or above an incline ladder is preferred.

Herrin reviewed materials and inspected the ATB DOROTHY ANN to make his assessment. Herrin had not had experience reviewing drawings of ship or tugs. The Court found his testimony interesting and relevant from an ergonomic aspect but not definitive as it relates to tugs or barges.

Herrin testified that the angle of descent is an important factor in the probability of slipping and falling on stairs, slipping in this case being a function of incline. Herrin noted that as the incline moves above 45 and 50 degrees the other "dimensional aspects," tread depth, riser height, handrails and the like become more critical in the assessment of the safety of a stairway. The higher the incline the less tread availability for footing and the higher probability of slipping.

Herrin found the tread on the 01-02 deck too narrow for the inclination of the stairs. Although he characterized the stairway as having some features of a stairway and some of a ladder, the Court finds his experience with marine vessels, especially tugs and barges,

² A separate record during trial was made regarding Herrin's and Fisher's opinions on whether the OSHA regulations, ABS and ASTM standards applied in this matter. For the reasons set forth in the Analysis portion of this Opinion, the Court concludes that the OSHA regulations, ABS and ASTM standards are not controlling in this case.

just too limited for him to reach such a conclusion given other testimony about the tight fit of tugs. Herrin also noted that with a 50 degree incline the stair is so steep it really should be a ladder, but he had no experience relative to tugs or other vessels and could therefore only opine relative to ergonomics in that regard.

Herrin measured the average riser height of the stairs at 8.44 inches, average tread depth 8.628, 6.25 actual tread to step on, putting the ball of a size 11 shoe foot beyond the nose of the stair. Herrin found the major ergonomic deficiency of the stairway was the narrow tread depth, excessive nose depth on a very steep stairway. Herrin found these measurements varied significantly from the OSHA regulations, ABS and ASTM guidelines and from Hill's original design.

Herrin noted that the 3M "friction strips" did a good job of "enhancing the coefficient of the friction" but the stairs were not of sufficient depth to allow the surface of the stair to be used. Herrin also applied water and measured the slipperiness of the stairs finding that a person who would naturally raise their heel no more than 15 degrees to step forward would "naturally slip on the nose of the stair." This he found especially true since no non-slip, non-skid material was covering the nose of the stair.

Herrin went on to cite the variance from the original Hill design of two handrails, the height of the stair and lack of diamond plating as concerns. The presence of only one handrail, the tread depth and the height of the stair, as well as the lack of diamond plating and the worn and shiny appearance of the nose of the stair were also factors. According to Herrin, the presence of only one handrail prevented a three point contact with the stair and prevented a person from catching himself in the event of a slip. This problem he found was enhanced by the bracket requiring a person to remove and reattach their hand to the

handrail after the bracket. Although he understood that Tully had indicated that he did catch himself and did not fall and that Tully was carrying laundry in one hand and could not have been assisted by an additional handrail, no mention was made of how that impacted his opinions.

Based on Herrin's observations it was predictable that persons descending the 01-02 deck stairs would "routinely slip and fall" based on the flaw in the design and maintenance of the stairway. Interlake challenged the accuracy of the measurements taken by Herrin. In addition, Interlake noted that none of the measurements taken by Plaintiff's experts or their calculations were consistent with each other.

2. Defendant's Expert Kenneth W. Fisher

Dr. Kenneth W. Fisher of Fisher Marine Transportation and Fisher Maritime Consultants inspected the ATB DOROTHY ANN for Interlake as part of the litigation on behalf of Interlake. Fisher has a B.S. in naval architecture and marine engineering and a Master's degree in naval architecture and marine engineering. He also has a Ph.D. in engineering economics applied to ship design. He has consulted on the design and purchase of ships and prepared specifications (but not drawings) for new vessels and modified design for vessels including tugboats. He has reviewed designs for stairs on vessels, including tugs and has prepared specifications for stairs on vessels. He has not drawn designs of stairs and has never designed a tug from the keel up. Not surprisingly, he has never designed an articulated tug barge such as the ATB DOROTHY ANN.

Fisher testified that construction tolerance is a phrase that means the actual construction dimensions in the shipyard will probably vary by a small amount from the design dimensions. It is not within the ability of the shipyard to control the dimensions as

accurately as shown in the drawing. Tolerances from the design are planned in the construction, design and inspection of the vessel and are acceptable and allowable. Fisher also testified that the custom and practice in the merchant shipping industry is what the design personnel responsible for the design of vessels have developed by consensus as to what constitutes adequate or good design practice. The consensus is usually the basis for the development of later codification or regulation since regulations do not develop in a vacuum. Sometimes the consensus remains just that, a consensus, and may never become codified. The industry custom and practice develops from naval architects and others who are actually responsible for determining what the vessel is going to look like. They also determine what constitutes good practice in order to keep the shipyards under control.

Fisher believes that a 55 degree angle is generally appropriate for the stair on a tug and on the ATB DOROTHY ANN, although he recognized that it is common in the industry to have up to a 65 degree inclination on a tugboat. He contributed this practice to the small space constraints encountered on tugboats. He noted the angle should not be greater than 55 degrees because it is critical to maximize the use of the tread depth. He measured the angle of inclination on the ATB DOROTHY ANN at 53 to 54 degrees. Fisher was aware that the ABS Application of Ergonomic Marine Systems, 5.1.1 guidance note, states the minimum angle should be between 30 and 50 degrees. However, he noted that this is a guidance and not a standard. Fisher was aware the OSHA requirement is the same as the ABS guidance, but he claimed OSHA was not applicable because the ATB DOROTHY ANN is an uninspected vessel.

Fisher also measured the tread depth and riser height finding them 8 5/8 inches

(back edge of the stair to the front edge as compared to Herrin's measurement of the tread run) and 8 1/4 inches respectively. He used these measurements to calculate the angle of inclination. He opined that the 8 5/8 and 8 1/4 inches, made the rise and run, 16 7/8 inches. He believed these measurements made the stair consistent with industry standards.

Fisher measured the riser height at 8 1/4 inches, plus or minus an eighth or two-eighths, from time to time, up and down the length of the stairway. He testified that the riser height is a function of the angle; fundamental geometry. Once the angle degree is determined, plus or minus construction tolerances, the riser height is determined by taking the total height between the two decks and dividing by the number of stairs. The sum of the riser height and tread depth together should be between 17 and 18 inches. Fisher criticized Herrin's calculation of the riser height and tread depth because Herrin used the riser height and tread run, instead of the riser height and tread depth. To Fisher, the rise and run and angle of the stair made no difference because in his opinion they did not contribute to Tully's slip on the stair.

Fisher also opined that the lack of non-skid material on the nose of the stair was also irrelevant because Tully had his foot flat on the stair. Fisher noted that there were better ways to prepare a non-skid surface on the stair than that designed by Hill (the diamond plate). He testified that diamond plate on the nose is not effective. He noted that the 3M non-skid pad was appropriately installed, consistent with the manufacturer's instructions. He opined that putting the non skid pads over the nose was not appropriate because it would become undone and would leave no color contrast between the stair and the nose.

Fisher also inspected the bracket on the stair and found no sharpness, contrary to Tully's testimony. He found no problem with how the bracket was installed and concluded

that one handrail was appropriate in this stairway that was designed for one person to pass at a time. The problem he noted was Tully's failure to hold on to the handrail as he was descending.

In conclusion, Dr. Fisher's opinion was that the stairs on the ATB DOROTHY ANN were seaworthy and safe. The variances from the design drawing are within construction tolerances.

IV. CONCLUSIONS OF LAW

A. *Tully's Claims*

Tully claims that the ATB DOROTHY ANN was in violation of The Jones Act, 46 U.S.C. § 688, *et seq*; that the vessel ATB DOROTHY was unseaworthy under General Maritime and Admiralty Law of the United States; and negligent *per se* under OSHA regulations and ASTM Standards. Tully also complains that the failure of the stairway to comply with OSHA regulations and ASTM guidelines constitutes negligence *per se*. Tully further claims that the ATB DOROTHY ANN failed to provide sufficient, adequate and safe equipment, appurtenances, and appliances with which to safely work by having a stairway: with an excessive degree of inclination; with insufficient tread depth; inadequate riser; lacking a sufficient non-skid, non-slip surface; insufficient handrails; and lacking appropriate maintenance. Tully claims that the negligence of the ATB DOROTHY ANN and her failure to comply with the appropriate regulations proximately caused him to slip and fall resulting in permanent injury to his back and his inability to work.

It is undisputed that the ATB DOROTHY ANN was in "navigation" for purposes of the application of The Jones Act 46 U.S.C. § 688, *et seq*. and that she was an uninspected

vessel pursuant to 46 U.S.C. § 2101 (43).

B. Applicability of OSHA Regulations to the Design and Construction of the Stairway between Deck 01-02 and Negligence Per Se

This Court initially concluded that OSHA regulations, and specifically 29 CFR §1910.24 were preempted by Coast Guard Regulations and did not apply to the ATB DOROTHY ANN as an uninspected vessel. (See, Order Re Various Motions and Notice Setting Trial Date, April 8, 2004, at 3-5). Plaintiff requested reconsideration of this ruling, citing *Mauler v. F/V CENTAURUS*, 1993 A.M.C. 1253, 1992 WL 510215 (W.D. Wash. 1992). This Court found *Mauler* persuasive and subsequently concluded that the OSHA regulations applied to the stairway at issue in this case. (Order Granting Motion for Rehearing of Plaintiff's Motion for Partial Summary Judgment, March 30, 2005) On April 8, 2005, the Defendant filed a Motion for Reconsideration of the Court's Ruling of March 30, 2005. A response was filed by the Plaintiff. On March 31, 2006, the Court entered an Order granting Defendant's Motion for Reconsideration, indicating that the Court would further consider this issue in its Conclusions of Law.

In *Chao v. Mallard Bay Drilling, Inc.*, 534 U.S. 235, 122 S.Ct. 738, 151 L.Ed.2d 659 (2002), the Supreme Court, with regards to uninspected vessels, determined that where the Coast Guard has not exercised its authority over certain working conditions, the Coast Guard regulations do not preempt OSHA regulations over those working conditions. *Chao*, 122 S.Ct. at 743-44. In the case cited by Plaintiff, *Mauler, supra*, the district court held that because Coast Guard regulations regarding fire control and navigational safety do not encompass specifications for stairways within the engine room of vessels, OSHA retained jurisdiction to regulate such stairways. *Mauler*, 2004 WL 510215 at *2-*3. However, the

district court found that based on OSHA's interpretation of its own regulations the ship's ladders were excluded from OSHA's definition of fixed industrial stairways. *Id.* at *3. The district court concluded that the plaintiff's employer could not have violated OSHA regulations and the plaintiff could not maintain his negligence *per se* claim. *Id.*

At trial, Plaintiff's experts, Webster and Herrin, testified that Interlake did not meet the OSHA regulations, 29 C.F.R. § 1910.24, the ABS and ASTM guidelines as they opined applied to the ATB DOROTHY ANN. Defendant's expert, Fisher testified at trial concerning OSHA's October 2003 Shipyard "Tool Bag" Directive regarding the applicability of 29 C.F.R. §1910.24 going forward from October 2003. He noted that this Directive was promulgated after both the construction of the ATB DOROTHY ANN and Tully's injury. The Directive states that 29 C.F.R. §1910.24 applies to "fixed industrial stairs that are not a permanent part of the vessel" and further states:

Also, 1910.24(a), (b), (f) and (h) apply to the conditions and use of fixed stairs that are a permanent part of the vessel. The 1910.24(c), (d), (e), (g) and (i) design specifications do not apply to fixed stairs that are a permanent part of the vessel.

The Directive also allows that "[a]ny hazardous conditions that employees are exposed to related to design will be cited using the standard under which the vessel fixed stairs were designed." 29 C.F.R. § 1910.24 October 2003 Directive. Sections (a) and (b) of 29 C.F.R. § 1910.24 are general provisions, while (f) and (h) concern parts of a stairway such as treads and handrails. Sections (c), (d), (e), (g) and (i) cover design and construction specifications such as stair strength, width, angle, platforms and vertical clearance.

Plaintiff argues that Defendant's expert is incompetent to render an opinion as to the legal application of a federal regulation such as the October 2003 OSHA Directive

regarding 29 C.F.R. § 1910.24 even though Plaintiff's own expert witnesses, Webster and Herrin, both testified that certain OSHA standards, 29 C.F.R. § 1910.24, apply to the instant case. Plaintiff further argues that an earlier OSHA Directive of November 8, 1996 should apply instead of the October 2003 Directive because the 1996 Directive was issued prior to the date of design and construction of the ATB DOROTHY ANN. Plaintiff claims that Defendant's argument, that the October 2003 Directive concerning the applicability of 29 C.F.R. § 1910.24 should be applied from the date of the Directive forward, and to the instant case have no basis in fact or law.

While it is true, under the Federal Rules, that an expert's opinion testimony "is not objectionable because it embraces an ultimate issue to be decided by the trier of fact," Fed.R.Evid. 704(a), it is also true that it continues to be the sole province of the trial court to determine the applicable law and that expert testimony expressing a legal conclusion is not allowed. *Berry v. City of Detroit*, 25 F.3d 1342, 1354 (6th Cir. 1994). The Court agrees with Plaintiff that Mr. Fisher is unable to testify as to which directive is applicable to this case. The Court does not rely on Mr. Fisher's testimony for the purpose of concluding that the October 2003 Directive is applicable to the case but merely to note that Defendant presented the October 2003 Directive at trial. The Court does not rely on the testimonies of Webster and Herrin as to whether 29 C.F.R. § 1910.24 applies to the instant case.

Generally, a court must apply the law in effect at the time it renders its decision. *Landgraf v. USI Film Prods.*, 511 U.S. 244, 263-64, 114 S.Ct. 1483, 128 L.Ed.2d 229 (1994). Courts are to give substantial deference to an agency's interpretation of its own regulations. *St. Francis Health Care Centre v. Shahala*, 205 F.3d 937, 943 (6th Cir. 2000). The October 2003 OSHA Directive is an interpretation by that agency regarding the OSHA

provisions concerning design specifications and their application. *Auer v. Robbins*, 519 U.S. 452, 461, 117 S.Ct. 905, 137 L.Ed. 79 (1997). Under the October 2003 OSHA Directive, the agency determined that 29 C.F.R. § 1910.24(c), (d), (e), (g), and (i) do not apply to fixed stairs that are a permanent part of the vessel, such as the stairs in the ATB DOROTHY ANN. Administrative agencies are not bound by their own prior construction of a statute and when an agency changes its mind, the courts sit in review of the administrative decision and should not approach the statutory construction issue *de novo* and without regard to the administrative understanding of the statutes. *Crounse Corp. v. ICC*, 781 F.2d 1176, 1186 (6th Cir. 1986) (citing *NLRB v. Local Union No. 103, International Ass'n of Bridge, Structural & Ornamental Iron Workers*, 434 U.S. 335, 351, 98 S.Ct. 651, 54 L.Ed.2d 586 (1978)). A statute does not operate 'restrospectively' merely because it is applied in a case arising from conduct antedating the statute's enactment. *Landgraf*, 511 U.S. at 269; *Campos v. INS*, 16 F.3d 118, 122 (6th Cir. 1994).

OSHA may change its interpretation of its regulations at any time as noted above. The 2003 OSHA Directive applies to Plaintiff's case even though Plaintiff's alleged injuries occurred and this lawsuit was instituted prior to the issuance of the 2003 OSHA Directive. OSHA has expressly noted that the regulations, 29 C.F.R. § 1910.24(c), (d), (e), (g), and (i), do not apply to fixed stairs that are a permanent part of the vessel. Therefore, § 1910.24(c), (d), (e), (g), and (i) do not apply to the ATB DOROTHY ANN. With regards to § 1910.24(a), (b), (f) and (h), it appears that Defendant concedes that these sections apply to the stairs at issue, based on Defendant's arguments regarding the 2003 OSHA Directive. However, for the reasons set forth below, an OSHA violation does not constitute negligence *per se*.

The Sixth Circuit has held that OSHA does not create a private cause of action. *Ellis v. Chase Communications, Inc.*, 63 F.3d 473, 477 (6th Cir. 1995). Section 653(b)(4) of OSHA states that “[n]othing in this chapter shall be construed ... to enlarge or diminish or affect in any other manner the common law or statutory rights, duties, or liabilities of employers.” 29 U.S.C. § 653(b)(4). The Sixth Circuit in *Minichello v. United States Industries, Inc.*, 756 F.2d 26, 29 (6th Cir. 1985), prohibited the use of OSHA standards to establish a product’s defective condition in a strict liability action³, holding that “OSHA regulations can never provide a basis for liability because Congress has specified that they should not.” *Id.* The Third Circuit in *Ries v. National R.R. Passenger Corp.*, 960 F.2d 1156 (3d Cir. 1992), held that § 653(b)(4) of OSHA prohibited an employee from using an employer’s violation of OSHA standards to show negligence *per se* under the Federal Employers Liability Act. The Third Circuit, citing the Sixth Circuit’s decision in *Minichello*, held that § 653(b)(4) of OSHA prevents a finding that a violation of an OSHA regulation constitutes negligence *per se* because such a finding would enlarge or diminish or affect the statutory duty or liability of the employer. *Ries*, 960 F.2d at 1162-163.

The Sixth Circuit has not yet ruled on the specific issue of whether a violation of OSHA standards constitute negligence *per se* under the Jones Act. Circuits who have considered whether or not an OSHA violation constitutes negligence *per se* under the Jones Act standard have held that such a violation does not result in negligence *per se*

³ Depending on a particular state’s law, the Sixth Circuit has held that an OSHA violation may or may not constitute negligence *per se*. See *Ellis v. Chase Communications, Inc.*, 63 F.3d 473 (6th Cir. 1995) (Tennessee law allows OSHA violations to constitute negligence *per se*.); *Maddox v. Ford Motor Co.*, 86 F.3d 1156 (6th Cir. 1996) (Ohio has held that OSHA violations do not constitute negligence *per se*).

which shifts the burden of disproving causation to the defendant because such a finding would enlarge the liability and diminish the common law rights of the defendant under 29 U.S.C. § 653(b)(4). See *Johnson v. Arctic Storm, Inc.*, 99 Fed. Appx. 799, 800-01, 2004 WL 1153687 **1, 2005 A.M.C. 302 (9th Cir. 2004). Even though § 1910.24(a), (b), (f) and (h) appear to apply based on the 2003 OSHA Directive, pursuant to the *Minichello* and *Ries* cases noted above, a violation of the regulation cannot constitute negligence *per se*.

C. Negligence Per Se under the Jones Act or Unseaworthiness Per Se

For a claim for negligence *per se* under the Jones Act, a plaintiff must show: 1) a violation of a Coast Guard regulation; 2) membership in the class of intended beneficiaries of the regulation; 3) an injury of the type designed to be protected by the regulation; 4) that the violation of the regulation was unexcused; 5) causation. See, *Smith v. Trans-World Drilling Co.*, 772 F.2d 160-61 (5th Cir. 1985). Unseaworthiness, like the Jones Act, can be the *per se* result of a regulatory violation. *Id.* at 162. In addition, the a plaintiff must show that the vessel's unseaworthiness played a substantial part in causing or actually caused the injury and the injury was a reasonably probable consequence or direct result of the lack of seaworthiness. *Id.* As Plaintiff has shown no Coast Guard regulation that was violated, nor the violation of any other "regulation" his claims of Jones Act negligence *per se* and unseaworthiness *per se* fail.

D. Jones Act Negligence

1. Standard

"Any seaman who shall suffer personal injury in the course of his employment may, at his election, maintain an action for damages at law." 46 U.S.C. §688 *et seq.*; see

Chandris, Inc. v. Latsis, 515 U.S. 347, 354, 115 S.Ct. 2172, 132 L.Ed.2d 314 (1995). To prevail on a Jones Act claim the Plaintiff must prove that Defendant Interlake was negligent and that Defendant's negligence in whole or in part caused the Plaintiff's injury. *Miller v. American President Lines, Ltd.*, 989 F.2d 1450, 1463 (6th Cir. 1993). A plaintiff must establish that the employer breached his or her duty of care, but need not establish proximate causation; only that the defendant's actions contributed in some way toward causing the plaintiff's injuries. *Id.*; see, *Jacob v. City of New York*, 315 U.S. 752, 755, 62 S.Ct. 854, 86 L.Ed. 1166 (1942); *Gautreaux v. Scurlock Marine, Inc.*, 107 F.3d 331, 335 (5th Cir. 1997). Negligence under the Jones Act must arise from a vessel owner's breach of its duty of care to provide the crew with a reasonably safe place to work. *Mahnich v. So. S.S. Co.*, 321 U.S. 96, 64 S.Ct. 455, 88 L.Ed. 561 (1944); *Rannals v. Diamond Jo Casino*, 265 F.3d 442, 447 (6th Cir. 2001). In order to prevail under the Jones Act, a plaintiff must show that his or her employer breached its duty to provide a safe workplace by neglecting to cure or eliminate obvious dangers of which the employer or its agents knew or should have known. *Rannals*, 267 F.3d at 449-50. A vessel owner owes a duty to exercise reasonable care in providing a safe work environment to seamen, including providing a deck, stairway or other walking surface which is not unreasonably slippery. *Dempsey v. Mac Towing*, 876 F.2d 1538, 1542-43 (11th Cir. 1989). Actual knowledge of an unsafe, hazardous or dangerous condition is not required to show negligence under the Jones Act. A court may find a vessel owner liable if the owner or employer or its agents knew or with reasonable care or through reasonable inspection should have known of the unsafe condition and knowledge of an unsafe condition may be inferred. See, *Ribitzki v. Canmar Reading & Bates, Ltd Partnership*, 111 F.3d 658, 663 (9th Cir. 1997); *Dempsey, supra*;

Colburn v. Bunge Towing, Inc., 883 F.2d 372, 374 (5th Cir. 1989); *Barboza v. Texaco*, 434 F.2d 121, 123 (1st Cir. 1970). An employer must have actual or constructive notice and the opportunity to correct an unsafe condition before liability will attach. *Rannals*, 265 F.3d at 449-50. However, the Jones Act does not require an “accident proof ship.” *Alrayashi v. Rouge Steel Co.*, 702 F. Supp. 1334, 1337 (E.D. Mich. 1989). A vessel owner is not responsible for injuries caused solely by a seaman’s own negligence. *Id.*

2. Degree of Inclination/Angle of Steps

Plaintiff claims Interlake breached its duty to provide a reasonable safe workplace condition because of the excessive degree of inclination of the stairs steps, insufficient tread depth, the lack of a sufficient non-skid, non-slip surface, and the lack of appropriate maintenance. As to the degree of inclination of the steps, the steps were measured at 52 degrees by Webster, 53.5 degrees by Herrin and 53 to 54 degrees by Fisher. Plaintiff argues that the OSHA regulations, the ABS and ASTM guidelines require a maximum of 50 degree angles. As the Court has ruled, the OSHA regulations are not applicable to this case.

As Interlake’s expert has testified, the ABS and ASTM guidelines are merely guidelines and not requirements. Both Hill and Fisher testified that based on their experiences, they have seen stairs on tugs with an inclination as high as 65 degrees. Fisher noted that the upper limit of the stairs should be at 55 degrees. All the measurements taken by the experts, Fisher concludes, are within the industry custom and practice and within construction tolerances. Hill specified a 50 degree angle of inclination which was appropriate and a much more relaxed angle than common on tugs. Hill would not design greater than 50 degrees although on most tugs it is 60 to 65 degrees. Hill also

testified that 53 to 54 degrees would be considered a variance from his design, but that tugs are routinely built with considerably steeper stairs.

Although Plaintiff's experts, Webster and Herrin, testified that the stairs violated the OSHA regulations, the ASTM and ABS standards or guidelines, because the angle was beyond the 50 degree angle of inclination, the Court finds that these testimonies do not take into account construction tolerances and the type of tug involved. As previously noted by the Court, Herrin did not have any experience in maritime vessels.

Webster himself acknowledged that the ATB DOROTHY ANN was a somewhat unusual vessel--an articulated tug barge. The primary purpose of this tug is to float into a barge with big hydraulic cylinders that hold the tug to the barge. This vessel is novel to the rest of the world, noted Webster. It is not a tug in the traditional sense of the word because it cannot go out on the ocean but can only operate in connection with the barge. Fisher also testified that this vessel is part of a transportation system and that it has to fit into that system. All of this results in space constraints within the ATB DOROTHY ANN. If the degree of inclination was decreased to 35 degrees, for example, Fisher testified that the deck house would then have to be wider, the walkways between the side of the deck house and the edge of the hull would be much smaller and the entire vessel would be much wider. A wider vessel would intrude into the structure of the barge and the transportation system--the barge and the tug ATB DOROTHY ANN--would not work. Although Fisher testified that it would not be physically impossible to extend the stairway to allow a decreased angle of inclination, he found it unnecessary to do so because the stairway is adequate as designed and constructed. Fisher noted that extending the stairway would impact the overall economics of the transportation system and the utility of the vessel.

Based on the testimonies at trial and for the reasons set forth above, the Court finds the angle of the steps were not unreasonable such that the angle of the steps created an unsafe condition.

3. Tread Depth

Hill testified that he designed the tread depth at 8 3/4 inches, flat tread and nosing of 1/4 inches to meet the marine standard of 9 inches. The measurement of the tread depth was at 8.3 to 8.5 inches by Webster, 8.628 inches average by Herrin, and 8 and 5/8 inches by Fisher. Plaintiff's experts, Webster and Herrin, both testified that the varying tread depth violated the OSHA regulations and ASTM recommendations. Given the one and 5/8 inch backdrop under the previous step, a foot would only have approximately 6 1/2 inches to land on the steps, which is insufficient according to Webster and Herrin. Fisher testified that the tread depths were uniform and were within the industry custom and practice. Fisher noted that the ASTM guidelines for tread depth is merely a recommendation.

The injury report signed by Tully indicates "none" in the space provided to indicate whether there were any unsafe conditions that caused the incident. Tully did not indicate that there was an issue about the tread depth of the steps or that the tread depth of the steps was insufficient for his feet to land on. Even if the tread depth was greater than the 8 and 5/8 inches measured on the vessel, it would not significantly help place a foot any differently on the step while descending. The Court finds that the tread depth was reasonable in that there is sufficient evidence establishing that it is within the industry custom and practice.

4. Riser Height/Rise and Run

Hill designed the riser height at 9 inches. With the 9 inches tread depth and 9 inches riser height, this would meet the standard “rise and run” between 17 and 18 inches (riser height + tread depth). Hill testified that an average of 14.5 to 14.6 inches of rise and run would be a variance. Webster measured the riser height at 8.3 to 9 inches, with the rise and run at 16.6 to 17.5 inches. Herrin found the riser height at an average of 8.44 inches, with the rise and run at 14 and 1/2 to 14 and 5/8 inches. Fisher measured the riser height at 8 1/4 inches, plus or minus an eighth or two-eighths from time to time, up and down the length of the stairway, making the rise and run about 16 and 7/8 inches. Fisher noted that the riser heights are essentially uniform in height. Fisher testified that the 8 and 1/4 inches height is an acceptable range of dimensions and is consistent with the industry custom. The variances are small and within construction tolerances. The variances do not have an affect on the usability or the utility of the stairs. Fisher criticized Herrin’s measurements as to the rise and run because Herrin did not use the riser height and tread depth data in his calculations but instead used the riser height and tread run data.

The Court finds that Plaintiff has not met his burden that the riser height or rise and run of the stairs and stairway of the ATB DOROTHY ANN were unreasonable and unsafe. There is sufficient evidence to show that the industry custom allows a riser height to be at 8 and 1/4 inches, making the rise and run 16 and 7/8 inches. These measurements are within the construction tolerances. The riser height and rise and run of the steps and stairway were reasonably safe to be used by the seamen.

5. Tread Surface

The surface of the treads was not unreasonably safe. The 3M non-skid pad covered the exposed portion of the tread which is consistent with the instructions of the pad’s

manufacturer. Although Hill designed diamond plating to be used on the steps, the 3M non-skid pads were more appropriate than diamond plating since diamond plating could become wet and slippery, as testified to by Hill. As Tully noted, prior to descending the stairway, he could see that the stair was still moist from the cleaning. Diamond plating would have contributed to a more slippery surface.

Fisher disputed Webster's testimony that Webster would have recommended the installation of the 3M non-skid pad and that the 3M non-skid nosing should have been placed over the edge of the stair because the 3M pad would then be applied to an uneven nosing surface instead of a clean, dry and smooth surface as recommended by the manufacturer. It would become a tripping hazard. Placing the 3M non-skid pad over the nose or leading edge of the step would make the stair tread and the nose black and consistent in color. It would therefore not be easy to discern the edge of the step, making the stair less safe to traverse.

The Court finds Fisher's testimony on the 3M non-skid pad the better argument in that diamond plating would have contributed to a more slippery surface than the 3M non-skid pad. Having the 3M non-skid pad over the leading edge or nose of the step and the tread surface would make it hard to determine where the steps are from one to another. The 3M non-skid pad was a reasonable item to place over the tread, making the tread surface reasonably safe.

6. Handrails and Brackets

The Court finds that Tully's claims that the handrails and the brackets (one of which had previously cut his hand although he failed to report the incident or the unsafe condition of the bracket) were unsafe are without merit. As Tully testified, a handrail was available

to him since he held onto the left handrail with his left hand when he descended the stairway. Building only one handrail instead of two handrails did not cause the stairway to be unsafe. Testimony indicated only one person would use the stairs at a time, therefore, there is no need for a second handrail. The standard cited by Plaintiff's expert requiring two handrails applies to passenger ships. Even if two handrails had been constructed along the stairway, as designed by Hill, having two handrails would not have prevented Tully's accident since he testified that he was carrying his laundry in a plastic crate when he left his room to the laundry room.

Tully testified he removed his hand from the handrail in order to avoid what he indicated was a sharp bracket on the handrail, although Fisher's inspection of the bracket found that the bracket was not sharp. Even if one of the brackets on the handrail was sharp, once he passed that particular bracket, Tully could have placed his hand back on the handrail. There is no record to indicate that anyone complained about the sharp bracket. Tully has not shown that Interlake had knowledge of the sharp bracket so that Interlake would have had the opportunity to correct the hazardous condition, if any. In any event, Tully's testimony is clear that at the time of the fall, neither hand was on any handrail.

Plaintiff has not carried his burden of showing that the handrail and the brackets were unreasonably safe. It was reasonable to provide only one handrail instead of two handrails along the stairway since the stairway is narrow and only one person at a time would be able to climb up and down the stairway.

7. Breach of Duty

Based on the evidence and testimony at trial, the Court finds that Interlake did not

breach its duty to provide a safe workplace because the condition of the stairway was reasonably safe. Even if such a duty was breached, the Court finds that the incident was caused solely by Tully. Tully's testimony at trial regarding his slip on the stair conflicts with the injury report prepared shortly after the incident which Tully signed as to the condition of the stairway. Tully saw before descending the stairway that the stairs were still moist. Tully was carrying his laundry in one hand. Tully did not use the handrail provided when he was approaching the bottom steps. Tully admits that neither hand was on any handrail when he slipped.

E. Seaworthiness of the ATB DOROTHY ANN

The unseaworthy claim brought under general maritime law is a separate and distinct cause of action than claims brought under the Jones Act. *Szymanski v. Columbia Transp. Co.*, 154 F.3d 591, 595 (6th Cir. 1998) (*En banc*). A Jones Act claim is based on the vessel owner's negligence, while an unseaworthiness claim has no negligence element. *Id.* The standard of causation under the Jones Act is more relaxed than that under an unseaworthiness claim which requires proximate cause. *Id.* at 595-96.

In an unseaworthiness claim, there is an absolute, strict and nondelegable duty on the part of the vessel owner to provide a seaworthy vessel "reasonably fit for its intended use." *Mitchell v. Trawler Racer, Inc.*, 362 U.S. 539, 550, 80 S.Ct. 926, 4 L.Ed.2d 941 (1960). The "test" for seaworthiness is whether the vessel is "in all respects pertinent to the injury, reasonably fit to permit" a seaman to perform his tasks "with reasonable safety." *Rutherford v. Lake Michigan Contractors, Inc.*, 132 F. Supp. 2d 592 (W.D. Mich. 2000) (Internal quotations and citations omitted). A vessel owner need not provide an accident proof ship. *Mitchell*, 362 U.S. at 550. The standard is not perfection but reasonable

fitness. *Id.* A seaman must show that the vessel was not fit for its intended use and that the vessel's unseaworthiness proximately caused the seaman's injury. *Szymanski*, 154 F.3d at 595. Proximate cause may be established by showing that the unseaworthy condition of the vessel was a substantial part in bringing about or causing the injury and the injury was either the direct or a reasonable probable consequence of the unseaworthiness. *Miller*, 989 F.2d at 1463. If the injuries are the same under the Jones Act and unseaworthiness claims, where no damages are permitted under the Jones Act, damages under the unseaworthiness claim are also not permitted. *Szymanski*, 154 F.3d at 595-96. The unseaworthy condition of the vessel may be proved by showing conditions similar to those that establish negligence under the Jones Act.

For the same reasons and based on the Court's findings regarding the conditions of the stairway set forth above in the Jones Act analysis, the Court finds that the conditions of the stairway were reasonably fit for its intended use. The stairway was seaworthy and the condition of the stairway did not cause Tully's injury.

V. CONCLUSION

Based upon the Court's findings of fact and conclusions of law set forth above, the Court finds no cause of action on Plaintiff's claims against Defendant. Given the above findings and conclusions, Exhibit O, the McAllister Towing Employment File and Exhibit U, references to intoxication and alcoholism are not required and are, therefore, moot.

Accordingly, a judgment will be entered against Plaintiff and in favor of Defendant.

s/ DENISE PAGE HOOD

Denise Page Hood
United States District Judge

DATED: April 20, 2007

I hereby certify that a copy of the foregoing document was served upon counsel of record on April 20, 2007, by electronic and/or ordinary mail.

S/William F. Lewis
Case Manager